Appendix 3: Standardized Milestones and Deliverables

The following tables display standard milestones and deliverables by project type. These milestones and deliverables are required as part of your grant agreement. Each table is a different sector of project types. Be sure to read end notes on the final page.

Project Type: All	Milestones	Deliverables
Work Crew-	Coordination with partner organizations/basin planner to identify and plan priority projects. Meet with DEC to confirm projects and timeline	List of partners, project proposal submitted to DEC
supported	Completion of each project individually	Project description and summary including photo/other documentation
project implementation	Track and report on measurable outcomes and provide programmatic evaluation	Performance report and evaluation form
	Project complete	Final report with project summaries, pre and post photos of each project meeting DEC requirements.
	Development of training program	Copy of training curriculum Copy of pre-and post-survey
Technical capacity building	Training held	List of attendees Pre- and post-survey results Numerical and narrative summary of outreach conducted to landowners as a result of the training Outreach documented through DEC n-form online outreach tracking process

Project Type: Agriculture	Milestones	Deliverables
	Project initiated; site locations and boundaries identified	Locator map(s) of identified problem area(s) and narrative on how areas were identified
Agricultural	Water quality improvement needs and objectives identified	Project summaries with water quality improvement needs and objectives identified
Agricultural Pollution Prevention – Project Identification	Prioritization criteria developed; project prioritization completed	List of criteria used for prioritization (must include level of landowner commitment); prioritized project list
	Assessment complete	Final Assessment Report (includes synthesis from prior completed project deliverables); batch import file ¹ and locator maps ² of projects identified
	Project complete	Final Performance Report ³ ; press release

	Project initiated; ownership of site(s) identified	Locator map with site photo(s); summary of landowner contact
Agricultural	Identified site/design considerations and permitting needs	Project summaries that identify site/design considerations, permitting needs, and water quality improvement objectives and goals
Pollution Prevention – Engineering	Determination of operation and maintenance (O&M) responsible party	Documentation of O&M responsible party once project is implemented
Design	100% design complete ⁴	Final Design Report (includes synthesis of prior completed project deliverables, 100% designs ⁴ , written landowner commitment to implement project, and final cost-estimate)
	Project complete	Final Performance Report ³ ; press release
	Project initiated; RFP issued (if applicable)	Copy of RFP (if applicable); photo(s) of site(s) pre-implementation
	Contractor selected (if applicable)	Signed contract; statement of reasoning for contractor selection (if applicable)
Agricultural	Required permits secured (if applicable)	Permit documentation (if applicable)
Pollution	Implementation update(s)	Interim report(s) (includes summary of work to date, percent progress, and construction photos)
Prevention – Implementation	Agricultural best management practice(s) (BMPs) implemented	
	O&M plan created and signed	Signed 10-year minimum O&M plan
	Project complete	Final Performance Report ³ ; press release; post-implementation photo(s)
	Project initiated; purchase of equipment	Invoice for equipment purchase
Agriculture - Equipment	Farmer cooperative agreement developed (if applicable); O&M plan created and signed	Signed cooperative agreement (if applicable); signed 10-year minimum O&M plan
	Project complete	Final Performance Report ³ including annual equipment reporting (required for 10 years); press release; photo(s) showing equipment in use

Project Type Forestry	Milestones	Deliverables
	Project initiated; site locations and boundaries identified	Locator map(s) of identified problem area(s) and narrative on how areas were identified
	Water quality improvement needs and objectives identified	Project summaries with water quality improvement needs and objectives identified
Forestry – Project Identification	Prioritization criteria developed; project prioritization completed	List of criteria used for prioritization (must include level of landowner commitment); prioritized project list
	Assessment complete	Final Assessment Report (includes synthesis from prior completed project deliverables); batch import file ¹ and locator maps ² of projects identified
	Project complete	Final Performance Report ³ ; press release

	Project initiated, ownership of site(s) identified	Locator map with site photo(s); summary of landowner contact
Forestry –	Identified site/design considerations and permitting needs	Project summaries that identify site/design considerations, permitting needs, and water quality improvement needs and objectives
Engineering	Determination of O&M responsible party	Documentation of O&M responsible party once project is implemented
Design	100% Design complete ⁴	Final Design Report (includes synthesis of prior completed project deliverables, 100% designs ⁴ , written landowner commitment to implement project, and final cost-estimate)
	Project complete	Final Performance Report ³ ; press release
Forestry - Implementation	Project initiated; RFP issued and contractor selected (if applicable)	Copy of RFP and signed contract; statement of reasoning for contractor selection (if applicable); photo(s) of site(s) pre-implementation
	Implementation update(s); Forestry acceptable management practice(s) implemented	Interim report(s) (includes summary of work to date, percent progress, and construction photos)
	Project complete	Final Performance Report ³ ; press release; post-implementation photo(s)
	Project initiated; purchase of equipment	Invoice for equipment purchase
Forestry – Equipment	Forester cooperative agreement developed (if applicable); O&M plan created and signed	Signed cooperative agreement (if applicable); signed 10-year minimum O&M plan
	Project complete	Final Performance Report ³ including annual equipment reporting (required for 10 years); press release; photo(s) showing equipment in use

Project Type : Lakes	Milestones	Deliverables
	Project initiated; kickoff meeting with Lake Association	Meeting minutes including date and number in attendance
	Site locations and boundaries for evaluation identified	Locator map of identified problem area(s) and narrative on how areas were identified; summary of landowner involvement
Lake Wise Master	Lake Wise Assessments completed	Summary of Lake Wise results and awards given with restoration/water quality improvement needs and objectives identified
Planning	Lake Wise BMP project prioritization	Priority scoring matrix of BMPs for potential design (must include level of landowner commitment); prioritized project list
	Lake Wise Master Plan complete	Lake Wise Master Plan report (includes synthesis from prior completed project deliverables); batch import file ¹ and locator maps ² of projects identified
	Project complete	Final Performance Report ³ ; press release

Lake Shoreland - Preliminary Engineering	Project initiated; identified site/design considerations and permitting needs	Locator map with site photo(s); project summaries that identify site/design considerations, permitting needs, and restoration/water quality improvement objectives and goals
	30% design complete ⁴	Preliminary Design Final Report (includes synthesis from prior completed project deliverables, 30% designs ⁴ , written landowner commitment to next project step, and cost-estimate)
Design	Project complete	Final Performance Report ³ ; press release
	Project initiated; determination of required permits	Documentation of required permits for project implementation, indicating potential challenges/conflicts for obtaining permit (if applicable) and project locator map
Lake Shoreland -	Determination of O&M responsible party	Documentation of O&M responsible party once project is implemented
Final Engineering Design	100% design complete ⁴	Final Design Report (includes synthesis of prior completed project deliverables, 100% designs ⁴ , written landowner commitment to implement project, and final cost-estimate)
	Project complete	Final Performance Report ³ ; press release
	Project initiated; RFP issued (if applicable)	Copy of RFP (if applicable); photo(s) of site(s) pre-implementation
	Contractor selected (if applicable)	Signed contract; statement of reasoning for contractor selection (if applicable)
	Required permits secured (if applicable)	Permit documentation (if applicable)
Lake Shoreland	Implementation update(s)	Interim report(s) (includes summary of work to date, percent progress, and construction
Buffers – Implementation	Buffer restoration planting completed	photos)
	O&M plan created and signed	Signed 10-year minimum O&M plan (including timing and completion of plant protection removal)
	Project complete	Final Performance Report ³ including buffer-BMP reporting; press release; post-implementation photo(s)

	Project initiated; site locations and boundaries identified	
Re	reject minated, site resultions and seamantes racinined	Locator map of identified problem area(s) and narrative on how areas were identified
ok	Restoration/water quality improvement needs and objectives identified	Project summaries with restoration/water quality improvement needs and objectives identified
Project	Prioritization criteria developed; project prioritization completed	List of criteria used for prioritization (must include level of landowner commitment); prioritized project list
	Assessment complete	Final Assessment Report (includes synthesis from prior completed project deliverables); batch import file ¹ and locator maps ² of projects identified
Pr	Project complete	Final Performance Report ³ ; press release
re Ge	Project initiated; baseline data created including stream each breaks, meander center lines, and valley walls; Stream Geomorphic Assessment Tool (SGAT) run	SGAT project on CD
Accoccmon+ (CCA)	Data entered to the Department of Environmental Conservation (DEC) SGA data management system	Verification of data entry to DEC SGA data management system
Q	Quality assurance check complete	Quality assurance documentation
Pł	Phase 1 SGA complete	Final SGA Phase 1 Report (includes synthesis from prior completed project deliverables)
Pr	Project complete	Final Performance Report ³ ; press release
	Project initiated; reaches selected from SGA Phase 1; andowner permission obtained	Report on reach prioritization method and landowner contact
Stream Geomorphic m	Field work completed; data entered to DEC SGA data management system	Verification that data entry to DEC SGA data management system
Assessment (SGA) Phase 2	Quality assurance check complete	Quality assurance documentation
	Phase 2 SGA complete	Final SGA Phase 2 Report (includes synthesis from prior completed project deliverables); batch import file ¹ and locator maps ² of projects identified
Pr	Project complete	Final Performance Report ³ ; press release
Pr	Project initiated; steering committee established	Minutes and list of attendees from steering committee meeting
Pr	Project identification meeting held	Table of projects identified following Rivers Program-provided template
River Corridor Plan	Corridor Plan drafted; 5 project packets developed	Draft corridor plan including minimum of five project packets with cost-estimates and landowner commitment to next project steps
Ri	River Corridor Plan complete	River Corridor Plan (includes synthesis from prior completed project deliverables); batch import file ¹ and locator maps ² of projects identified
Pr	Project complete	Final Performance Report ³ ; press release

Project Type: Rivers	Milestones	Deliverables
Dam Removal - Preliminary	Project initiated; feasibility/alternatives analysis completed; identified permitting needs	Feasibility/alternatives analysis report, including permitting needs
	Design concepts completed	Design concepts report including updated conceptual site plan, design criteria for all aspects of the design, and construction cost-estimates
	Check-in and approval for topographic and boundary survey; geotechnical report	Report of the topographic and boundary survey; geotechnical report if determined to be applicable or description of why these are not applicable*1.
Engineering Design	30% design complete ⁴	Preliminary Design Final Report (includes synthesis of prior completed project deliverables, 30% design ⁴ , written landowner commitment to next project step, and costestimate)
	Project complete	Final Performance Report ³ ; press release
	Project initiated; determination of required permits	Documentation of required permits for project implementation, indicating potential challenges/conflicts for obtaining permit (if applicable) and project locator map
Dam Removal - Final	Determination of O&M responsible party	Documentation of O&M responsible party once project is implemented
Engineering Design	100% design completed ⁴	Final Design Report (includes synthesis of prior completed project deliverables, 100% designs ⁴ , written landowner commitment to implement project, and final cost-estimate)
	Project complete	Final Performance Report ³ ; press release
	Project initiated; RFP issued (if applicable)	Copy of RFP (if applicable); photo of site pre-implementation
	Contractor selected	Signed contract; statement of reasoning for contractor selection
Dam Removal -	Required permits secured	Permit documentation
Implementation	Implementation update(s)	Interim report(s) (includes summary of work to date, percent progress, and construction photos)
	Dam removed; restoration work completed	
	Project complete	Final Performance Report ³ ; press release; post-implementation photo
	Project initiated; ownership of site(s) identified	Locator map with site photo(s); summary of landowner contact
Floodplain/Stream Restoration - Preliminary Engineering Design	Identified site/design considerations and permitting needs	Project summaries that identify site/design considerations, permitting needs, and restoration/water quality improvement objectives and needs (includes field survey completed with GIS-based map and cross-section locations)
	30% design complete ⁴	Preliminary Design Final Report (includes alternatives analysis summary, synthesis of prior completed project deliverables, 30% designs ⁴ , written landowner commitment to next project step, and cost-estimates)
	Project complete	Final Performance Report ³ ; press release

Project Type: Rivers	Milestones	Deliverables
	Project initiated; determination of required permits	Documentation of required permits for project implementation, indicating potential challenges/conflicts for obtaining permit (if applicable) and project locator map
Floodplain/Stream	Determination of O&M responsible party	Documentation of O&M responsible party once project is implemented
Restoration - Final Engineering Design	100% design complete ⁴	Final Design Report (includes synthesis of prior completed project deliverables, 100% designs ⁴ , written landowner commitment to implement project, and final cost-estimate)
	Project complete	Final Performance Report ³ ; press release
	Project initiated; RFP issued (if applicable)	Copy of RFP (if applicable); photo(s) of site(s) pre-implementation
	Contractor selected (if applicable)	Signed contract; statement of reasoning for contractor selection (if applicable)
Floodplain/Stream	Required permits secured (if applicable)	Permit documentation (if applicable)
Restoration - Implementation	Implementation update(s) Floodplain/stream restoration project(s) implemented	Interim report(s) (includes summary of work to date, percent progress, and construction photos)
	O&M plan created and signed	Signed 10-year minimum O&M plan
	Project complete	Final Performance Report ³ ; press release; post-implementation photo(s)
	Project initiated; ownership of site(s) identified	Locator map with site photo(s); summary of landowner contact
	Site plan; conservation documents drafted	GIS site plan; copy of draft conservation documents
River Corridor	Property survey completed	Property survey
Easement – Design	Landowner negotiations completed	Report of landowner negotiations, including commitment to implementation and costestimate
	Final draft agreement for easement completed	Final draft agreement for easement
	Project complete	Final Performance Report ³ ; press release
	Project initiated; purchase and sales agreement signed	Signed purchase and sales agreement
Divor Corridor	Property title search and insurance completed	Title report
River Corridor Easement - Implementation	Easement closed, and long-term monitoring plan developed	Copy of all legally filed documents signed by the grantee and landowner; MOU for stewarding river corridor easements between grantee and DEC; copy of easement with DEC as a third-party beneficiary
	Project complete	Final Performance Report ³ ; press release; post-implementation photo(s)

Project Type: Rivers	Milestones	Deliverables
	Project initiated; site constraints identified	Locator map(s) with pre-implementation site photo(s); site descriptions with constraints listed
River Corridor -	Developed planting plan; secured landowner agreements with signed O&M plans	Planting plan (including species type, number, and estimated cost) in accordance with SGA or River Corridor Planning recommendations (if available); signed landowner agreement(s) with minimum 10-year O&M plan(s)
Buffer Planting	Implementation updates Buffer restoration planting completed	Interim report(s) (includes summary of work to date, percent progress, and construction photos)
	Project completed	Final Performance Report ³ including buffer-BMP reporting; press release; post-implementation photo(s)

Project Type Road	Milestones	Deliverables
Road Erosion Control Inventory	Project initiated; site locations and boundaries identified	Locator map of identified problem area(s) and narrative on how areas were identified
	Water quality improvement needs and objectives identified	Project summaries with water quality improvement needs and objectives identified
	Prioritization criteria developed; project prioritization completed	List of criteria used for prioritization (must include level of landowner commitment); prioritized project list
,	Road Erosion Control Inventory complete	Final Road Erosion Inventory (includes synthesis from prior completed project deliverables); batch import file ¹ and locator maps ² of projects identified
	Project complete	Final Performance Report ³ ; press release
	Project initiated; site locations and boundaries identified	Locator map of identified problem area(s) and narrative on how areas were identified
	Restoration needs and objectives identified	Project summaries with restoration needs and objectives identified
Road Project - Project	Prioritization criteria developed; project prioritization completed	List of criteria used for prioritization (must include level of landowner commitment); prioritized project list
Identification	Final assessment complete	Final Assessment Report (includes synthesis from prior completed project deliverables); batch import file ¹ and locator maps ² of projects identified
	Project complete	Final Performance Report ³ ; press release
	Project initiated; ownership of site(s) identified	Locator map with site photo(s); summary of landowner contact
Road Project - Preliminary Engineering Design	Identified site/design considerations and permitting needs	Project summaries that identify site/design considerations, permitting needs, and water quality improvement objectives and goals
	30% design complete ⁴	Preliminary Design Final Report (includes synthesis of prior completed project deliverables, 30% designs ⁴ , written landowner commitment to next project step, and cost-estimate)
	Project complete	Final Performance Report ³ ; press release

Road Project - Final Engineering Design	Project initiated; determination of required permits	Documentation of required permits for project implementation, indicating potential challenges/conflicts for obtaining permit (if applicable) and project locator map
	Determination of O&M responsible party	Documentation of O&M responsible party once project is implemented
	100% design complete ⁴	Final Design Report (includes synthesis of prior completed project deliverables, 100% designs ⁴ , written landowner commitment to implement project, and final cost-estimate)
	Project complete	Final Performance Report ³ ; press release
	Project initiated; RFP Issued (if applicable)	Copy of RFP (if applicable); photo(s) of site(s) pre-implementation
	Contractor selected (if applicable)	Signed contract; statement of reasoning for contractor selection (if applicable)
	Required permits secured (if applicable)	Permit documentation (if applicable)
Road Project - Implementation	Implementation update(s)	Interim report(s) (includes summary of work to date, percent progress, and construction
	BMP(s) implemented	photos)
	O&M plan created and signed	Signed 10-year minimum O&M plan
	Project complete	Final Performance Report ³ including BMP reporting; press release; post-implementation photo(s)
Stormwater/ Roads – Equipment	Project initiated; purchase of equipment	Invoice for equipment purchase
	Cooperative agreement developed (if applicable); O&M plan created and signed	Signed municipal cooperative agreement (if applicable); signed 10-year minimum O&M plan
	Project complete	Final Performance Report ³ including annual equipment reporting (required for 10 years); press release; photo(s) showing equipment in use

Project Type: Stormwater	Milestones	Deliverables
Stormwater Utility development	Identify legal authority for utility creation	Relevant state statute and local statutes, Selectboard approval, Town Attorney opinion
	Identify revenue requirements	Summary report of stormwater management costs to be covered by utility
	Rate structure development	Memo on recommended rate structure
	Public outreach summary and final rate structure	Summary of public outreach effort, public comments and response summary
	Utility database development	Subcontractor report on new or modified existing utility billing system with testing
	Adoption of utility and rate structure	Selectboard decision on SW Utility budget and rate structure

Stormwater – IDDE	Project initiated; RFP issued and contractor selected (if applicable)	Copy of RFP and signed contract (if applicable); statement of reasoning for contractor selection
	Data acquisition and review initiated	Initial survey and advanced investigation; itemized cost list with documentation on methods used
	Data acquisition and review completed	Interim table of outfall monitoring results
	IDDE assessment completed	Final report summarizing problems found, status of problems found, recommended actions, data tables, problem area maps, and cost-estimates
	Project complete	Final Performance Report ³ ; press release
	Project initiated; RFP issued and contractor selected (if applicable)	Copy of RFP and signed contract; statement of reasoning for contractor selection (if applicable)
	Data acquisition and review completed	Locator map(s); documentation of data gaps; data library
Stormwater	Existing condition water quality improvement needs and objectives identified	Documentation of problem areas with locator maps and site photo(s)
	Prioritization criteria developed; project prioritization completed	List of criteria used for prioritization; prioritized project list
Master Plan	Meeting(s) with stakeholders held	Summary of meeting(s)
	Restoration plans developed for a subset of prioritized projects	Restoration plans of prioritized projects including preliminary (30%) engineering designs and cost estimates
	Stormwater Master Plan completed	Storm Water Master Plan (includes synthesis from prior completed project deliverables); batch import file ¹ and locator maps ² of projects identified
	Project complete	Final Performance Report ³ including BMP reporting (one BMP report template for each 30% design completed); press release
Stormwater - Preliminary Engineering Design	Project initiated; ownership of site(s) identified	Locator map with site photo(s); summary of landowner contact
	Identified site/design considerations and permitting needs	Project summaries that identify site/design considerations, permitting needs, and water quality improvement objectives and goals
	30% design complete ⁴	Preliminary Design Final Report (includes synthesis of prior completed project deliverables, 30% designs ⁴ , written landowner commitment to next project step, and cost-estimate)
	Project complete	Final Performance Report ³ including BMP reporting (one BMP report template for each 30% design completed); press release
Stormwater - Final Engineering Design	Project initiated; determination of required permits	Documentation of required permits for project implementation, indicating potential challenges/conflicts for obtaining permit (if applicable) and project locator map
	Determination of O&M responsible party	Documentation of O&M responsible party once project is implemented

	100% design complete ⁴	Final Design Report (includes synthesis of prior completed project deliverables, 100% designs ⁴ , written landowner commitment to implement project, and final cost-estimate with a level of effort document)
	Project complete	Final Performance Report ³ including BMP reporting (indicate BMP status as designed); press release
Stormwater – Implementation	Project initiated; RFP Issued (if applicable)	Copy of RFP (if applicable); photo(s) of site(s) pre-implementation
	Contractor selected (if applicable)	Signed contract; statement of reasoning for contractor selection (if applicable)
	Permit documentation (if applicable)	Required permits secured (if applicable)
	Implementation update(s); BMP(s) implemented	Interim report(s) (includes summary of work to date, percent progress, construction photos)
	O&M plan created and signed	Signed 10-year minimum O&M plan
	Project complete	Final Performance Report ³ including BMP reporting (indicate BMP status as constructed); press release; post-implementation photo(s)

Project Type Wetlands	Milestones	Deliverables
Wetland Restoration - Project Identification	Project initiated; site locations and boundaries identified	Locator map of identified problem area(s) and narrative on how areas were identified
	Restoration needs and objectives identified	Project summaries with restoration needs and objectives identified
	Prioritization criteria developed; project prioritization completed	List of criteria used for prioritization (must include level of landowner commitment); prioritized project list
	Assessment completed	Final Assessment Report (includes synthesis from prior completed project deliverables); batch import file ¹ and locator maps ² of projects identified
	Project complete	Final Performance Report ³ ; press release
	Project initiated; ownership of site(s) identified	Locator map with site photo(s); summary of landowner contact
Wetland Restoration-	Identified site/design considerations and permitting needs	Project summaries that identify site/design considerations, permitting needs, and restoration objectives and goals
Preliminary Engineering Design	30% design complete ⁴	Preliminary Design Final Report (includes synthesis of prior completed project deliverables, 30% designs ⁴ , written landowner commitment to next project step, and cost-estimate)
	Project complete	Final Performance Report ³ ; press release
	Project initiated; determination of required permits	Documentation of required permits for project implementation, indicating potential challenges/conflicts for obtaining permit (if applicable) and project locator map
Wetland	Determination of O&M responsible party	Documentation of O&M responsible party once project is implemented
Restoration – Final Engineering Design	100% design complete ⁴	Final Design Report (includes synthesis of prior completed project deliverables, 100% designs ⁴ , written landowner commitment to implement project, and final cost-estimate)
	Project complete	Final Performance Report ³ ; press release
	Project initiated; RFP issued (if applicable)	Copy of RFP (if applicable); photo(s) of site(s) pre-implementation
	Contractor selected (if applicable)	Signed contract; statement of reasoning for contractor selection (if applicable)
Wetland Restoration - Implementation	Required permits secured (if applicable)	Permit documentation (if applicable)
	Implementation update(s)	Interim report(s) (includes summary of work to date, percent progress, and construction photos)
	BMP(s) implemented	
	O&M plan created and signed	Signed 10-year minimum O&M plan
	Project complete	Final Performance Report ³ ; press release; post-implementation photo(s)

¹ The batch import file (BIF) is a required deliverable for assessment/planning projects resulting in project Identification. All projects involving project identification and prioritization are required to complete a table listing each project identified. The BIF is used to incorporate projects identified and prioritized into Vermont Tactical Basin Plan Implementation Tables and can be obtained from your technical grant manager.

² Locator maps for projects identified: Grantees/contractors are required to submit locator maps for each project identified under "project identification" projects, such as assessments and planning projects. Locator maps must be created using the ANR Atlas Ecosystem Restoration Grant Screening Layer (http://anrmaps.vermont.gov/websites/anra5/) so that potential indicators of natural resource conflicts/permitting needs will appear on the map of the project area. Project locator maps should be downloaded from the Atlas for each project identified and listed in the BIF (described above) and submitted as a PDF. See the Application Manual, Appendix 1, for instructions on how to create project locator maps.

³ Final performance reports are the final deliverable for each Ecosystem Restoration grant/contract agreement (templates provided in Attachment E in all agreements). If a grant agreement involves stormwater design and project implementation, additional reporting at the best management practice (BMP) level may be required. Fillable formats of performance report templates are available at: http://dec.vermont.gov/watershed/cwi/grants.

⁴ Ecosystem Restoration Design Terminology and Guidance Document defines design completion levels and expected deliverables and is available at: http://dec.vermont.gov/sites/dec/files/documents/ERPDesignTerminologyandGuidance.pdf.

^{*}If both the grant manager and the engineer agree that topographic and boundary surveys and/or a geotechnical report are not necessary due to the nature of the dam removal location, instead provide a justification why they are not necessary. Grantee will not be paid for this deliverable if the surveys were not competed